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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/032,893	02/27/1998	JOHN O. BIESER	41824B	1428
23859	7590	12/16/2004	EXAMINER	
NEEDLE & ROSENBERG, P.C. SUITE 1000 999 PEACHTREE STREET ATLANTA, GA 30309-3915			JUSKA, CHERYL ANN	
		ART UNIT	PAPER NUMBER	
		1771		

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/032,893	BIESER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Cheryl Juska	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 10 September 2004.

2a)  This action is **FINAL**.                                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1,3-6,9-12 and 15-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1,3-6,9-12 and 15-17 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

DETAILED ACTION

1. In view of the Appeal Brief filed on September 10, 2004, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-6, 9-12, 15, and 16 stand rejected under 35 USC 103(a) as being unpatentable over US 6,344,515 issued to Parikh et al. in view of US 5,545,276 issued to Higgins and US 5,240,530 issued to Fink, for the reasons of record.

4. Claim 17 stands rejected under 35 USC 103(a) as being unpatentable over the cited Parikh patent in view of the cited Higgins and Fink patents as applied to claims 1 and 16 above, and in further view of US 5,741,594 issued to Jialanella, for the reasons of record.

5. Claims 1, 3-6, 9-12, 15, and 16 are rejected over US 5,545,276 issued to Higgins and US 5,240,530 issued to Fink in view of US 5,272,236 and US 5,278,272 issued to Lai et al.

As discussed previously, Higgins teaches known carpets comprises a primary backing tufted with face yarns of nylon, polyester, or polyolefin fibers, and an adhesive precoat or backcoat, such as known hot melt adhesives (col. 1, lines 23-33, col. 5, lines 59-97, and col. 6, lines 14-33). Additionally, Fink teaches known prior art tufted carpets include face fiber tufted through a primary backing and an adhesive backcoat “in order to secure the face fiber to the primary backing” (col. 1, lines 12-24). Suitable adhesive backcoats are thermoplastic hot melt adhesives (col. 2, lines 4-23). Said hot melt adhesives have sufficient flow (i.e., low viscosity) to wet and penetrate the primary backing surface and the tuft backstitches to encapsulate and consolidate the tufts (col. 2, lines 23-30 and 55-64). A particular hot met adhesive is chosen on its suitability in adhering the tufts to the primary backing (col. 3, lines 22-29). The face fibers or tufts may be made of nylon, polyester, or polypropylene (col. 8, lines 14-24), while the primary backing may be a woven or nonwoven fabric of jute, polypropylene, nylon, or polyester (col. 1, lines 37-43).

Thus, it is well known in the art to employ thermoplastic polymers as hot melt adhesives for carpet backcoats wherein said backcoat penetrates and encapsulates the tuft backstitches in order to secure said tufts in place. Fink also teaches that requirements for selection of a suitable hot melt adhesive backcoats. The hot melt adhesive must have a low enough viscosity at

temperatures employed in finishing to achieve good wetting of the backings and sufficient encapsulation of tuft stitches to make the tuft yarns resistant to pull out, pilling, and fuzzing (col. 2, lines 55-59). Additionally, the activation temperature of said hot melt adhesive must be below the temperature at which the primary backing and tufts melt or otherwise distort (col. 2, lines 48-54). Furthermore, for commercial practice, said hot melt adhesive backcoat must be at least as good as a conventional latex backcoat in securing the tufts (col. 2, lines 59-64).

Hence, Fink teaches criteria for selection of a hot melt adhesive backcoat for carpeting, while Higgins teaches hot melts are known, but is silent with respect to specific compositions. Thus, one skilled in the art would conclude that selection of suitable hot melt adhesives for backcoat applications is within the level of ordinary skill in the art. As such, it would have been obvious to one skilled in the art to select any of the known polymeric compositions as long as the criteria set forth by Fink are met (i.e., low enough viscosity for wet out at temperatures low enough not to damage the textile fibers of the carpet). It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. With this in mind, the polymer compositions claimed by applicant are well known in the art. Specifically, the Lai patents disclose the presently claimed composition of homogeneously branched ethylene polymer having the recited short chain branching distribution index (SCBDI). Therefore, it would have been readily obvious to one skilled in the art to select the Lai polymers as suitable hot melt adhesive backings in carpets.

With respect to the claimed tuft bind strength, it is argued that the carpet comprising the teachings of the cited prior art would meet the claimed tuft bind strength in that said prior art

carpet meets the structural and chemical limitations of the claims. It follows that said prior art must also have the same physical properties.

Regarding the label recitation of claim 9, it is noted that the recyclable representation of the label or literature is not given patentable weight at this time because the words or symbols written on a label or literature are not structural limitations of the claimed carpet. Additionally, applicant is hereby given Official Notice that labels and/or literature are included with commercial carpets for sale in the United States. Thus, it would have been obvious to one skilled in the art to include a label or literature on the prior art carpet. Therefore, claims 1, 3-6, 9-12, 15, and 16 are rejected as obvious over the prior art.

6. Claim 17 is rejected under 35 USC 103(a) as being unpatentable over the cited Higgins, Fink, and Lai patents as applied to claims 1 and 16 above, and in further view of US 5,741,594 issued to Jialanella.

The prior art discussed above does not explicitly teach a secondary backing comprising a homogenously branched ethylene polymer having a SCBDI of greater than or equal to 50%. However, Jialanella discloses a laminate material comprising the claimed polymer. As asserted by applicant in previous discussions, Jialanella teaches said laminate material as a secondary carpet backing. Thus, it would have been obvious to one skilled in the art to employ the Jialanella secondary backing for the secondary backing of the Higgins, Fink, and Lai prior art carpet, with the expectation of producing a carpet having improved delamination resistance and good recyclability. Therefore, claim 17 is rejected over the cited prior art.

***Response to Arguments***

7. Applicant's arguments have been carefully considered but have not been found persuasive for the reasons set forth above.
8. Said arguments are addressed in the order presented in section D, sections 1-14, pages 10-22.
  1. Applicant asserts the Final Office Action improperly relies on the Parikh's claims as disclosure in determining obviousness. In response, it is argued that the claims of a patent are part of the printed document that is available to one skilled in the art as available prior art under 35 USC 102. As such, the examiner believes the subject matter of said claims are properly relied upon for the rejection at hand.
  2. Applicant asserts that it would not have been obvious to modify Parikh's ranges in that said modification of Parikh would decrease the amount of the main adhesive ingredient to 5% while increasing the amount of an optional secondary material up to 90%. In response, it is reiterated that Parikh discloses the adhesive composition may contain up to 75% of the modifier (i.e., homogeneously branched ethylene polymer, HBEP), but only requires only 5% polymer base and 5% tackifier. Thus, it would have been obvious to one skilled in the art to increase the amount of HBEP to about 80%. Additionally, it is noted that applicant has not established any criticality for the claimed lower limit of "about 80%." As such, it is held that the cited limit cannot serve to patentably distinguish from the prior art.
  3. Applicant asserts the principal of operation of Parikh would be altered by the proposed modification in that modification of the Parikh adhesive to include 80% of HBEP would

provide an adhesive composition primarily comprising an optional or secondary component. In response, it is reiterated that Parikh already teaches said optional or secondary HBEP may be present in an amount up to 75% by weight. Hence, Parikh explicitly teaches an adhesive composition comprising primarily said HBEP is within the scope of the disclosed invention.

4. Applicant asserts the Final Office Action is reading the Parikh reference out of its context in that disclosed amount of optional or secondary component is not descriptive of the HBEP amount. The examiner respectfully disagrees. It appears applicant is reading the disclosure too narrowly. Col. 4, lines 11-26 states the following:

The subject invention further pertains to a composition comprising at least one substantially random interpolymer of ethylene and a vinylidene aromatic comonomer or a hindered aliphatic vinylidene comonomer and optionally at least one third comonomer selected from the group consisting of C<sub>sub.3</sub>-C<sub>sub.20</sub>.alpha.-olefins, and at least one tackifier, and at least one extending or modifying composition or processing aid. The subject invention further pertains to such a composition, wherein the extending or modifying composition is selected from the group consisting of the following: paraffinic waxes, crystalline polyethylene waxes, styrene block copolymers, ethylene vinyl acetate, polymers or interpolymers of styrene and/or alkyl-substituted styrene, such as .alpha.-methyl styrene, and homogeneous linear or substantially linear interpolymers of ethylene and one or more C<sub>sub.3</sub>-C<sub>sub.20</sub>.alpha.-olefins.

Similarly, col. 14, lines 31-39 states:

The composition comprising the substantially random interpolymer of ethylene and at least one vinylidene aromatic monomer or hindered aliphatic vinylidene monomer, and optional C<sub>sub.3</sub>-C<sub>sub.20</sub>.alpha.-olefin, may be optionally modified by the inclusion of an extending or modifying composition. Exemplary extending or modifying compositions include paraffinic wax, crystalline polyethylene wax, and/or a homogeneous linear or substantially linear ethylene/.alpha.-olefin interpolymer.

Hence, when col. 19, lines 25-29 states:

The adhesive of the invention may further comprise at least one modifying composition, as described above. When such a modifying composition is employed, it will typically be present in the adhesive system in an amount of from 5 to 75 weight percent.

One skilled in the art would reasonably presume that the 5-75% range is applicable to all of the disclosed compositions suited for said modifier.

5. Applicant additionally asserts that Parikh does not teach or suggest that homogenously linear or substantially linear ethylene/alpha olefin interpolymers independently possess adhesive properties. As such, one would not be motivated to increase the amount thereof to provide an adhesive composition as presently claimed. In response, it is argued that it is well known in the art that thermoplastic polyolefins can function as hot melt adhesives.
6. Applicant asserts that Parikh does not provide a “clear and particular” teaching or suggestion of the use of those compositions as a backcoat type adhesive. The examiner respectfully disagrees. It is the examiner’s position that Parikh teaches hot melt adhesives which can be extruded onto substrates such as carpet backings. In the carpet art, one of ordinary skill would readily understand this teaching to mean an adhesive backcoat. Support for this position is first found in the conventional use of hot melt adhesives extruded onto tufted primary backings for encapsulating said tufts. Note the teachings of the Higgins and Fink references.
7. Applicant asserts that Parikh presents no reasonable expectation of success that those compositions may be used as backcoat adhesives to provide the claimed carpet and carpet tiles. In response, that polyolefin compositions are well known in the art as suitable for hot melt backcoat adhesive for carpets. Since, there is nothing on record establishing that the compositions of Parikh would not function in this manner, one skilled in the art would have a reasonable expectation of success.

8. Applicant argues Parikh is not analogous art to the claimed invention since it is drawn to pressure sensitive adhesives. In response, it is reiterated that Parikh explicitly teaches the inventive adhesive may also be a hot melt adhesive. Parikh is drawn to compositions, in general, containing the specified polymers and adhesive compositions, in particular. Said compositions may also include non-adhesive applications such as coatings and molded articles (abstract), while said adhesive compositions may be hot melt adhesives as well as pressure sensitive adhesives.
9. Applicant asserts Fink '530 appears to be cited in error since WO 93/15909 issued to Fink (Fink '93) was cited and subsequently removed as a reference in prior Office Actions. In response, it is noted that the rejection based upon Fink '530 is not in error. Specifically, *the prior art rejection* based upon Fink '93 was withdrawn due to the amendment. This is not the same as removing a publication as a reference. [Note section 2 of the Final Rejection mailed January 15, 2003.] In the present rejection, Fink is not relied upon for its inventive “integral fused” adhesive backcoat and primary backing, but rather its teachings of what is known in the art (e.g., conventional carpet construction and adhesive backcoat compositions).
10. Applicant argues the secondary references do not supply the carpet or carpet tiles aspects of Applicant’s claims in that Fink requires integral fusion of the adhesive backcoat and primary backing, while the present claims specifically exclude this feature. In response, it is reiterated that the Fink reference is not relied upon for its inventive carpet back, but rather for its general teaching of the convention in the art. Applicant also

argues that Fink does not teach the present limitation of “substantially penetrated” and “substantially consolidated.” In response, it is noted that Fink clearly teaches hot melt adhesive backcoats have sufficient flow (i.e., low enough viscosity) to wet and penetrate the backing surfaces and tuft stitches (i.e., encapsulate and/or consolidate the fibers) (col. 2, lines 23-30 and 55-64). Thus, applicant’s argument is found unpersuasive. Applicant further argues that Higgins does not teach specific hot melt adhesives or how said adhesive is incorporated therein. In response, Higgins is not relied upon to teach the specific hot melt composition, but rather the convention of hot melt adhesives in the art of carpet backings. Additionally, it is reiterated that the function and form of hot melt adhesive backings are convention in the art as evidenced by Fink’s teaching of known prior art adhesive backcoats. Thus, Higgins is not required to teach these specifics.

11. Applicant asserts the combination of Parikh, Higgins, and Fink improperly relies on allegedly inherent features as the basis for an obviousness rejection. The examiner contends the rejection is proper. Specifically, it is not improper to assume that the combination of prior art that produces a like chemical and structural material would also have like physical properties.
12. Applicant relies upon data from the specification to demonstrate that “all hot melt type adhesives are not created equal.” In response, the examiner asserts applicant is misinterpreting the examiner’s position. Specifically, the examiner denies any ‘contention that “all hot melt type adhesives are created equal.” To the contrary, it is recognized that chemically and structurally equivalent materials necessarily have like physical properties. Since the prior art compositions meet the chemical and structural

features claimed by applicant, it is reasonable to presume that the prior art composition also has like properties. If applicant contends that the prior art composition is not equivalent physically, then applicant's claims must be incomplete in that the chemical or structural feature that produces the desired physical properties is not recited.

13. Applicant argues the rejection of claim 17 by relying upon the above traversals. Hence, no new arguments are presented.
14. (a) Applicant asserts the examiner improperly taking from Parikh a description of an improvement as the motivation to modify those compositions. In response, it is reiterated that the motivation is provided by the desire to optimize the adhesive composition. Specifically, it would have been obvious to one skilled in the art to increase the modifier component from 75% to 80% or even 90% in order to improve the tackiness and the modulus of the adhesive. Such a modification would not destroy the intent of the Parikh invention.
- (b) Applicant asserts the examiner improperly incorporating a previous Office Action in a Final Rejection. In an Office Action, it is not improper to rely upon a previous rejection as a basis for a rejection, while merely addressing the new limitations in the current rejection.
- (c) Applicant asserts Parikh's pressure sensitive adhesive would not be suitable for use as claimed by applicants. Yet again, the examiner points out Parikh is not limited to pressure sensitive adhesives.
- (d) Finally, applicant asserts the Final Office Action wholly fails to address the recited features of "substantially penetrated and substantially consolidated." The examiner

denies this assertion and directs applicant to section 4 of the Office Action mailed August 7, 2003, and incorporated by reference in the Final Office Action, section 3.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHERYL A. JUSKA  
PRIMARY EXAMINER

  
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December 13, 2004